September 26, 2003
1420 East 6th Ave.
P.O. Box 200701
Helena, MT 59620

Environmental Quality Council
Montana Department of Environmental Quality
Montana Department of Fish, Wildlife and Parks
Fisheries Division
Endangered Species Coordinator
Native Species Coordinator, Fisheries Office
Missoula Office
Montana State Library, Helena
MT Environmental Information Center
Montana Audubon Council
Missoula County Conservation District
U.S. Army Corp of Engineers, Helena
U.S. Fish and Wildlife Service, Helena
State Historic Preservation Office, Helena
Bitterroot Chapter Trout Unlimited
Larry Kolb, 1220 Lincoln Parkway, Missoula, MT 59802
Elizabeth Maclay, 6404 Maclay Road, Lolo, MT 59847
Helena Maclay, 210 North Higgins Ave., Missoula, MT 59802
Gayland Enockson, 1115 Lolo Creek Road, Lolo, MT 59847

Ladies and Gentlemen:

Please find enclosed an Environmental Assessment prepared for the Future Fisheries Improvement Program. The Program tentatively plans to provide partial funding to a project calling for the construction of a fish screen in the Maclay Irrigation Canal on Lolo Creek. The intent of the project is to reduce entrainment of downstream migrating fish into the canal and potentially increase the return of spawning adults. This proposed project is located on Lolo Creek approximately 4 miles upstream from the confluence with the Bitterroot River near the town of Lolo in Missoula County.

Please submit any comments that you have by 5:00 P.M., October 27, 2003 to the Department of Fish, Wildlife and Parks in Helena at the address listed above. Completion of this project is contingent upon approval being granted by the Fish, Wildlife and Parks Commission. If you have any questions, feel free to contact me at (406) 444-2432. Please note that this draft EA will be considered as final if no substantive comments are received by the deadline listed above.

Sincerely,

Mark Lere, Program Officer
Habitat Protection Bureau
Fisheries Division
Email: mlere@state.mt.us

Missoula
Future Fisheries

ENVIRONMENTAL ASSESSMENT
Fisheries Division
Montana Fish, Wildlife and Parks
Maclay Irrigation Canal Fish Screen Project

General Purpose: The 1995 Montana Legislature enacted statute 87-1-272 through 273 which directs the Department to administer a Future Fisheries Improvement Program. The program involves providing funding for physical projects to restore degraded fish habitat in rivers and lakes for the purpose of improving wild fisheries. The legislature established an earmarked funding account to help accomplish this goal. Additionally, the 1999 Montana Legislature amended statute sections 87-1-273, 15-38-202 and Section 5, Chapter 463, Laws of 1995 to create a bull trout and cutthroat trout enhancement program. The program calls for the enhancement of bull trout and cutthroat trout through habitat restoration, natural reproduction and reductions in species competition by way of the Future Fisheries Program.

The Future Fisheries Improvement Program is proposing to provide partial funding for a project calling for the construction of a self-cleaning fish screen in the Maclay Irrigation Canal on Lolo Creek. The intent of this project is to eliminate the entrainment of fish into the irrigation canal and improve survival of downstream migrating fish, including post-spawn adults, young of the year and fingerlings. The Maclay ditch is a large ditch (35 cubic feet per second) that diverts water from Lolo Creek approximately 4 miles upstream from the confluence with the Bitterroot River. Electrofishing surveys have documented the entrainment of bull trout, westslope cutthroat trout, rainbow trout, brown trout, brook trout, mountain whitefish and sculpin into this canal.

I. Location of Project: This project will be conducted on the Maclay Irrigation Canal located on Lolo Creek approximately 4 miles upstream from the confluence with the Bitterroot River near the town of Lolo in Missoula County (Attachment 1). The specific location of this proposed project is within Township 11 North, Range 20 West, Section 6.

II. Need for the Project: One goal within Montana Fish, Wildlife and Parks six year operations plan for the fisheries program is to "restore and enhance degraded habitats" by implementing habitat restoration projects and administering the Future Fisheries Improvement Program to restore important habitats on public and private lands. This proposed project would help meet this goal.

Lolo Creek is a 4th order tributary to the Bitterroot River with a mean annual flow of 226 cfs (9 year period of record). The stream exhibits substantial fisheries values due to good water and habitat quality. Lolo Creek currently supports populations of brook trout, brown trout, rainbow trout, mountain whitefish, westslope cutthroat trout and rainbow-cutthroat hybrids, as well as a small population of resident bull trout. The Maclay Irrigation Canal diverts a substantial proportion of the flow from Lolo Creek during the irrigation season and electro-fishing surveys have documented the entrainment of numerous fish, including bull trout. This proposed fish screen would eliminate the loss of fish into this irrigation canal.

III. Scope of the Project:

The project proposes to construct a self-cleaning drum style fish screen near the head of the Maclay Irrigation Canal. This screen will be driven by a water-powered paddle wheel and will have a by-pass pipe to allow fish and collected debris to return to the stream. A trash rack will be installed in front of the screen to prevent coarse debris from fouling the system. This project is expected to cost $112,000.00. Of this total, the Future Fisheries Improvement Program would be contributing up to $39,200.00. The U.S. Fish and Wildlife Service through the Fisheries Restoration and Irrigation Mitigation Act of 2000 is contributing the remainder of the needed funding.

IV. Environmental Impact Checklist:

Please see attached checklist.

V. Explanation of Impacts to the Physical Environment

1. Terrestrial and aquatic life and habitats.

Removing a source of fish entrainment from Lolo Creek by installing a self-cleaning fish screen will help restore connectivity to the Bitterroot River for westslope cutthroat trout and bull trout, as well as other species of fish. Eliminating entrainment of fish into this irrigation canal is expected to increase the recruitment of salmonids and other species of fish to both Lolo Creek and the Bitterroot River.

2. Water quantity, quality and distribution.

Construction will be conducted during a time of the year when the irrigation canal is shut off. As a result, water quantity, quality and distribution will not be adversely affected. Installation of the by-pass pipe is expected to disturb a three to four foot lineal reach of stream bank. To minimize turbidity, operation of equipment in the stream channel will not be allowed and work will be conducted during a period of low flow. The Department of Environmental Quality will be contacted to determine narrative conditions required to meet short-term water quality standards and protect aquatic biota. A 124 permit (Stream Protection Act) will be obtained from Montana Fish, Wildlife and Parks and the U.S. Army Corp of Engineers will be contacted for requirements to meet the federal Clean Water Act (404 permit). The quantity of water withdrawn from Lolo Creek for irrigation purposes is not expected to change significantly following installation of the fish screen, although withdrawal over a very short stream reach may be somewhat greater due to the need to pass water through the by-pass pipe.

3. Geology and soil quality, stability and moisture.

Soils within the project site would be disturbed during project construction, but would quickly stabilize following proposed re-vegetation efforts. Re-vegetation efforts call for re-seeding disturbed area with native grasses.

4. Vegetation cover, quantity and quality.

Vegetation and cover would be disturbed during the period of construction along a short reach of the canal and along a 3 to 4 foot reach of the stream. A few woody shrubs may need to be removed to allow for access by equipment and for the installation of the by-pass pipe.

5. Aesthetics.

Aesthetics would be adversely impacted during construction due to ground disturbance and the presence of heavy equipment. In the long term, aesthetics would not be adversely affected.

7. Unique, endangered, fragile, or limited environmental resources.

Electro-fishing surveys have documented the entrainment of bull trout and westslope cutthroat trout into the Maclay Irrigation Canal. Installation of the screen will eliminate entrainment of fish into this canal and may increase the return of spawning adults. Because Lolo Creek supports bull trout, a species listed as threatened under the Endangered Species Act, the project will be included in Montana Fish, Wildlife and Parks Section 6 conservation plan with the U.S. Fish and Wildlife Service.

9. Historic and archaeological sites

The site for the fish screen has been previously disturbed by the construction of the Maclay canal. As a result, there is a very low likelihood that cultural properties will be impacted as a result of this proposed project. Should cultural materials be inadvertently discovered during the project, the State Historic Preservation Office will be contacted and the site will be investigated.

VI. Explanation of Impacts on the Human Environment.

7. Access to & quality of recreational activities.

A fish screen installed in the Maclay Irrigation Canal is expected to increase the recruitment of salmonids to Lolo Creek and the Bitterroot River and is expected to improve the recreational fishery that these water bodies provide.

VII. Discussion and Evaluation of Reasonable Alternatives.

1. No Action Alternative

If no action is taken, the Maclay Irrigation Canal will continue to entrain downstream migrating fish and migratory connectivity to the Bitterroot River will continue to be

diminished. As a result, the potential for recruitment of salmonids and other species of fish from the Lolo Creek drainage will not be fully realized.

2. The Proposed Alternative

The proposed alternative calls for installing a self-cleaning drum style fish screen on the Maclay Irrigation Canal. The intent of the project is to eliminate entrainment of downstream migrating fish into the canal system and potentially increase the return of spawning adults. This proposal is expected to improve recruitment of salmonids and other species of fish to Lolo Creek and the Bitterroot River and enhance the recreational fishery that these water bodies provide.

VIII. Environmental Assessment Conclusion Section

1. Is an EIS required? No.

We conclude from this review that the proposed activities will have a positive impact on the physical and human environment.

2. Level of public involvement.

The proposed project was reviewed and supported by the public review panel of the Future Fisheries Improvement Program. The proposed project also will be reviewed by the Fish, Wildlife and Parks Commission and will be contingent upon their approval. The Environmental Assessment (EA) is being distributed to all individuals and groups listed on the cover letter. The EA will be published on Montana Fish, Wildlife and Parks webpage: fwp.state.mt.us

3. Duration of comment period?

Public comment will be accepted through 5:00 PM on October 27, 2003.

4. Person responsible for preparing the EA.

Mark Lere, Program Officer
Habitat Protection Bureau
Fisheries Division
Montana Department of Fish, Wildlife and Parks
1420 East 6th Avenue
Helena, MT 59620

Telephone: (406) 444-2432
e-mail: mlere@state.mt.us

MONTANA DEPARTMENT OF FISH, WILDLIFE AND PARKS
1420 E 6th Ave, PO BOX 200701, Helena, MT 59620-0701
(406) 444-2535

ENVIRONMENTAL ASSESSMENT

Project Title Maclay Irrigation Canal Fish Screen Project

Division/Bureau Fisheries Division -Future Fisheries Improvement
Description of Project The Future Fisheries Improvement Program is proposing to provide partial funding for a project calling for the construction of a self-cleaning fish screen in the Maclay Irrigation Canal on Lolo Creek. The intent of the project is to reduce the entrainment of downstream migrating fish and increase the return of spawning adults. The project site is located at the Maclay Irrigation Canal on Lolo Creek approximately four miles upstream from the confluence with the Bitterroot River.

POTENTIAL IMPACT ON PHYSICAL ENVIRONMENT

	MAJOR	MODERATE	MINOR	NONE	UNKNOWN	COMMENTS ON ATTACHED PAGES
1. Terrestrial & aquatic life and habitats			X			X
2. Water quality, quantity & distribution			X			X
3. Geology & soil quality, stability & moisture			X			X
4. Vegetation cover, quantity & quality			X			X
5. Aesthetics			X			X
6. Air quality				X		
7. Unique, endangered, fragile, or limited environmental resources			X			X
8. Demands on environmental resources of land, water, air & energy				X		
9. Historical & archaeological sites				X		X

POTENTIAL IMPACTS ON THE HUMAN ENVIRONMENT

	MAJOR	MODERATE	MINOR	NONE	UNKNOWN	COMMENTS ON ATTACHED PAGES
1. Social structures & mores				X		
2. Cultural uniqueness & diversity				X		
3. Local & state tax base & tax revenue				X		
4. Agricultural or industrial production				X		
5. Human health				X		
6. Quantity & distribution of community & personal income				X		
7. Access to & quality of recreational and wilderness activities			X			X
8. Quantity & distribution of employment				X		
9. Distribution & density of population & housing				X		
10. Demands for government services				X		
11. Industrial & commercial activity				X		
12. Demands for energy				X		
13. Locally adopted environmental plans & goals				X		
14. Transportation networks & traffic flows				X		

Other groups or agencies contacted or which may have overlapping jurisdiction Missoula County Conservation District, US Fish and Wildlife Service, US Army Corp of Engineers, Montana Department of Environmental Quality, State Historic Preservation Office

Individuals or groups contributing to this EA Ladd Knotek, Montana

Fish, Wildlife and Parks
Recommendation concerning preparation of EIS No EIS required.
EA prepared by: Mark Lere
Date: September 27, 2003